

### Abstract of the Disclosure

The present invention concerns an optical transmission apparatus and provides a wavelength tunable DBR laser diode capable of minimizing change in optical power upon wavelength tuning and having a broad wavelength tunable range. The present invention provides a wavelength tuning DBR laser diode of a waveguide type optical device in which an active waveguide and a distributed Bragg reflector are optically combined in a predetermined section on a semiconductor substrate wherein at least one quantum well layer independent of the active waveguide is formed at a portion or the entire portion of the distributed Bragg reflector.